

FIREGUARD DRYWALL PLUG (TYPE X AND TYPE XX)

MSDS FP2016

SECTION 1 CHEMICAL PRODUCT AND IDENTIFICATION

BPMI - Building Products Manufacturing International, Inc.

8900 SW Burnham Street - Suite 107

Tigard, Oregon 97223

United States of America

ACUTE:

Product Safety: (503) 218-2900

www.BPMI-USA.com

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SECTION 2 HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: ΔWARNING!

This product is not expected to produce any unusual hazards during normal use. Exposure to high dust levels may irritate the skin, eyes, nose, throat, or upper respiratory tract. This product does not present an inhalation, ingestion, or contact health hazard unless subjected to operations such as sawing, sanding or machining which result in the generation of airborne particulate. This product contains quartz (crystalline silica) as a naturally occurring contaminant.

POTENTIAL HEALTH EFFECTS (See Section 11 for more information)

ACOTE .	
Inhalation	Exposure to dust generated during the handling or use of the product may cause temporary irritation to eyes, skin, nose, throat, and upper respiratory tract. Persons subjected to large amounts of this dust will be forced to leave area because of nuisance conditions such as coughing, sneezing and nasal irritation. Labored breathing may occur after excessive inhalation. If respiratory symptoms persist, consult physician.
Eyes	Dust can cause temporary mechanical irritation of eyes. If burning, redness, itching, pain or other symptoms persist or develop, consult physician.
Skin	None known.
Ingestion	None known.
CHRONIC:	
Inhalation	The concentration of respirable crystalline silica measured in bulk samples of USG gypsum was less than 0.1 Wt.%. Industrial hygiene testing, following the NIOSH Method 7500, did not detect respirable crystalline silica in dust created during the cutting of USG gypsum wallboard panels by both the recommended score and snap technique and with the use of a power saw in a 10ft by 10ft room.
Eyes	None known.
Skin	None known.
Ingestion	None known.

TARGET ORGANS: Eyes, skin and respiratory system.

PRIMARY ROUTES OF ENTRY: Inhalation, eyes and skin contact.

CARCINOGENICITY CLASSIFICATION OF INGREDIENT(S) All substances listed are associated with the nature of the raw materials used in the manufacture of this product and are not independent components of the product formulation. All substances, if present, are at levels well below regulatory limits. See Section 11: Toxicology Information for detailed information.



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MATERIAL		IARC NTP ACGIH		CAL- 65		
FibrousGlass/Continuous Filament		3	2	A4	Not Listed	
Crystalline	silica	1	1	A2	Listed	
Vinyl Aceta	ate Monomer	2b	Not Listed	A3	Not Listed	
Acetaldehy	yde	2b	2	A3	Listed	
Formaldeh	nyde	1	2	A2	Listed	
IARC	International Agency for Research on Cancer: 1- Carcinogenic to humans; 2A – Probably carcinogenic to humans; 2B – Possibly carcinogenic to humans; 3 - Not classifiable as a carcinogen; 4 – Probably not a carcinogen					
NTP	National Toxicology Program (Health and Human Services Dept., Public Health Service, NIH/NIEHS): 1- Known to be carcinogen; 2- Anticipated to be carcinogens					
ACGIH	American Conference of Governmental Industrial Hygienists: A1 – Confirmed human carcinogen; A2 – Suspected human carcinogen; A3 – Animal carcinogen; A4 - Not classifiable as a carcinogen; A5 – Not suspected as a human carcinogen					
CAL-65	-65 California Proposition 65 "Chemicals known to the State of California to Cause Cancer"					

Respirable crystalline silica: IARC: Group 1 carcinogen, NTP: Known human carcinogen. The weight percent of crystalline silica given represents total quartz and not the respirable fraction. The weight percent of respirable silica has not been measured in this product.

POTENTIAL ENVIRONMENTAL EFFECTS: Toxicity studies of gypsum performed with fish, aquatic invertebrates and aquatic plants showed no toxic effect. (See Section 12 for more information.)

SECTION 3 COMPOSITION, INFORMATION ON INGREDIENTS

MATERIAL	WT%	CAS#	
Gypsum or Calcium Sulfate Dihydrate (CaSO4•2H2O)	>80	13397-24-5/10101-41-4	
Cellulose	<10	9004-34-6	
Vermiculite	<10	1318-00-9	
Starch	<3	9005-25-8	
Fibrous Glass (Continuous Filament)	<1	65997-17-3#	
Crystalline Silica	<5	14808-60-7^	
Aluminum Foil (as Aluminum and Cmpds)	<3	7429-90-5	
Ethylene Vinyl Acetate Polymer	<2	24937-78-8	

All ingredients of this product are included in the U.S. Environmental Protection Agency's Toxic Substances Control Act Chemical Substance Inventory and the Canadian Domestic Substances List (DSL).

#As manufactured, continuous filament glass fibers are not respirable. Continuous filaments that are chopped, crushed, or severely mechanically processed during manufacture or use may contain very small amounts of respirable particulates. ^The weight percent for silica represents total quartz and not the respirable fraction.



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SECTION 4 FIRST AID MEASURES

FIRST AID PROCEDURES:						
Inhalation	Remove to fresh air. Leave the area of exposure and remain away until coughing and other symptoms subside. Other measures are usually not necessary, however if conditions warrant, contact physician.					
Eyes	In case of contact, do not rub or scratch your eyes. To prevent mechanical irritation, flush thoroughly with water for 15 minutes. If irritation persists, consult physician.					
Skin	Wash with mild soap and water. If irritation persists, consult physician.					
Ingestion	This product is not intended to be ingested or eaten. If gastric disturbance occurs, call physician.					

MEDICAL CONDITIONS WHICH MAY BE AGGRAVATED: Pre-existing upper respiratory and lung diseases such as, but not limited to, bronchitis, emphysema and asthma. Pre-existing skin diseases such as, but not limited to, rashes and dermatitis.

NOTES TO PHYSICIAN: Treatment should be directed at the control of symptoms and the clinical condition.

SECTION 5 FIRE FIGHTING MEASURES

General Fire Hazards	None known				
Extinguishing Media	Water or use extinguishing media appropriate for surrounding fire.				
Special Fire Fighting Procedures	Wear appropriate personal protective equipment. See section 8.				
Unusual Fire/ Explosion Hazards	None known				
Hazardous Combustion Products	None known				
Flash Point	Not Determined Auto Ignition Not Applicable				
Method Used	Not Applicable	Flammability Classification	Not Applicable		
Upper Flammable Limit (UFL)	Not Determined Flammability Classification Not Applicabl				
Lower Flammable Limit (LFL)	Not Determined	Rate of Burning	Not Applicable		

SECTION 6 ACCIDENTAL RELEASE MEASURES

CONTAINMENT: Collect panels from spillage and if not damaged or contaminated by foreign material, panels may be reclaimed.

CLEAN-UP: Use normal clean up procedures. No special precautions.

DISPOSAL: Follow all local, state, provincial and federal regulations. Never discharge large releases directly into sewers or surface waters.



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SECTION 7 HANDLING AND STORAGE

HANDLING: Avoid dust contact with eyes and skin. Wear the appropriate eye and skin protection against dust (See Section 8). Minimize dust generation and accumulation. Avoid breathing dust. Wear the appropriate respiratory protection against dust in poorly ventilated areas and if TLV is exceeded (see Sections 2 and 8). Use good safety and industrial hygiene practices. Follow traditional building practices; such as management of water away from the interior of the structure to avoid the growth of mold, mildew and fungus. Remove any building products suspected of being exposed to sustained moisture and considered conducive to mold growth from the jobsite.

STORAGE: Store in a cool, dry, ventilated area away from sources of heat, moisture and incompatibilities (see Section 10). Protect product from physical damage. Protect from weather and prevent exposure to sustained moisture.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

MATERIAL		TLV (mg/m3)	PEL(mg/m3)
Gypsum or Calcium Sulfate Dihydrate (CaSO4•2H2O)	>80	10	15(T)/5(R)
Cellulose	<10	10	15(T)/5(R)
Vermiculite	<10	(NE)	(NE)
Starch	<3	10	15(T)/5(R)
Fibrous Glass (Continuous Filament)	<1	1 f/cc(R)*	15(T)/5(R)
Crystalline Silica	<5	0.025®	0.1®
Aluminum Foil (as Aluminum and Cmpds)		10	15(T)/5(R)
Ethylene Vinyl Acetate Polymer		(NE)	(NE)

(T)-Total; (R)-Respirable; (NE)-Not Established; (C)-Ceiling; (STEL)-Short-term exposure limit

(F)-Fume; (Du)-Dust; (M)-Mist

ppm-part per million; f/cc-fiber per cubic centimeter; mppcf- million particles per cubic foot

*ACGIH: 1 fiber/cubic centimeter air for fibers longer than 5 micrometers and thinner than 3 micrometers. Continuous filaments that are chopped, crushed, or severely mechanically processed during manufacture or use may contain very small amounts of respirable particulates [PEL = 5 mg/m3(R)].

ENGINEERING CONTROLS: Provide ventilation sufficient to control airborne dust levels. If user operations generate airborne dust, use ventilation to keep dust concentrations below permissible exposure limits. Where general ventilation is inadequate, use process enclosures, local exhaust ventilation, or other engineering controls to control dust levels below permissible exposure limits.

RESPIRATORY PROTECTION: Wear a NIOSH/MSHA-approved respirator equipped with particulate cartridges when dusty in poorly ventilated areas, and if TLV is exceeded. A respiratory program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. If engineering controls are not possible, wear a properly fitted NIOSH/MSHA-approved particulate respirator.

OTHER PERSONAL PROTECTIVE EQUIPMENT:

Eye/Face	Wear eye protection, safety glasses or goggles, to avoid possible eye contact.
Skin	Wear gloves and protective clothing to prevent repeated or prolonged skin contact.



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SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Paper with off white color	Vapor Density (Air = 1)	Not Applicable	
Odor	Low to no odor	Specific Gravity (H2O = 1)	2.32 – 2.96	
Odor Threshold	Not Determined	Solubility in water (g/100g)	0.26/100g	
Physical State	Solid	Partition Coefficient	Not Applicable	
pH @ 25 º C	~ 7	Auto-ignition Temp	Not Determined	
Melting Point Not Applicable		Decomposition Temp	2650ºF/1450ºC	
Freezing Point Not Applicable		Viscosity	Not Applicable	
Boiling Point	Not Applicable	Particle Size	Varies	
Flash Point	Not Determined	Bulk Density	~ 55 lb/ft3	
Evaporation Rate (BuAc = 1)	Not Applicable	Molecular Weight	~ 172	
Upper Flammable Limit (UFL) Not Determined		VOC Content	Zero g/L	
Lower Flammable Limit (LFL)	Not Determined	Percent Volatile	Zero	
Vapor Pressure (mm Hg)	Not Applicable			

SECTION 10 CHEMICAL STABILITY AND REACTIVITY

STABILITY	Stable.		
CONDITIONS TO AVOID	Contact with incompatibles (see below).		
INCOMPATIBILITY	None known.		
HAZARDOUS POLYMERIZATION	None known.		
HAZARDOUS DECOMPOSITION	None known.		

SECTION 11 TOXICOLOGICAL INFORMATION

ACUTE EFFECTS: The acute oral toxicity study [OECD TG 420] of calcium sulfate dihydrate showed that this chemical did not cause any changes even at 2,000 mg/kg b.w. Therefore, the oral LD50 value was more than 2,000-mg/kg b.w. for female rats. Gypsum paste applied experimentally to the eyes of rabbits was not an irritant. Gypsum dust particulate has shown an irritant action on mucous membranes of the respiratory tract and eyes. The sulfate ion has caused gastro-intestinal disturbance in humans following large oral doses. Limited studies involving the repeated inhalation of an (unspecified) calcium sulfate failed to identify any particular target organs in monkeys, rats and hamsters. No evidence of mutagenicity was found in Ames bacterial tests.

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MATERIAL SAFETY DATA SHEET

Building Products Manufacturing International, Inc. FIREGUARD DRYWALL PLUG (TYPE X AND TYPE XX)

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CHRONIC EFFECTS / CARCINOGENICITY: Panels do not release respirable dust in their installed state and therefore do not present any known health hazards when installed and properly maintained. Crystalline Silica: Exposures to respirable crystalline silica are not expected during the normal use of this product; however, actual levels must be determined by workplace hygiene testing. The weight percent of respirable crystalline silica may not have been measured in this product. Prolonged and repeated exposure to airborne free respirable crystalline silica can result in lung disease (i.e., silicosis) and/or lung cancer. The development of silicosis may increase the risks of additional health effects. Smoking in combination with silica exposures increases the risk of cancer. The risk of developing silicosis is dependent upon the exposure intensity and duration. In June, 1997, IARC classified crystalline silica (quartz and cristobalite) as a human carcinogen. In making the overall evaluation, the IARC Working Group noted that carcinogenicity in humans was not detected in all industrial circumstances studied. Carcinogenicity may be dependent on inherent characteristics of the crystalline silica or on external factors affecting its biological activity or distribution of its polymorphs. IARC states that crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1).

SECTION 12 ECOLOGICAL INFORMATION

ENVIRONMENTAL TOXICITY: This product has no known adverse effect on ecology. Toxicity studies of gypsum performed with fish, aquatic invertebrates and aquatic plants showed no toxic effect.

Ecotoxicity value Not determined.

SECTION 13 DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose of material in accordance with federal, state, and local regulations. Never discharge directly into sewers or surface waters. Consult with environmental regulatory agencies for guidance on acceptable disposal practices.

SECTION 14 TRANSPORT INFORMATION

U.S. DOT INFORMATION: Not a hazardous material per DOT shipping requirements. Not classified or regulated.					
Shipping Name	ame as product name				
Hazard Class	Not classified				
UN/NA #	Not classified				
Packing Group	None				
Label (s) Required	Not applicable				
GGVSec/MDG-Code	Not classified				
ICAO/IATA-DGR	Not applicable				
RID/ADR	None				
ADNR	None				



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SECTION 15 REGULATORY INFORMATION

UNITED STATES REGULATIONS									
All ingredients of this product are	included in	the U.S. Env	/ironmental	Protection	n Agency's To	xic Substa	nces Contro	l Act	
Chemical Substance Inventory.					0 ,				
MATERIAL	WT%	302	304	313	CERCLA	CAA	Sec. 112	RCRA Code	
Gypsum or Calcium Sulfate Dihydrate (CaSO4•2H2O)	>80	NL	NL	NL	NL	NL	NL	NL	
Cellulose	<10	NL	NL	NL	NL	NL	NL	NL	
Vermiculite	<10	NL	NL	NL	NL	NL	NL	NL	
Starch	<3	NL	NL	NL	NL	NL	NL	NL	
Fibrous Glass (Continuous Filament)	<1	NL	NL	NL	NL	NL	NL	NL	
Crystalline Silica	<5	NL	NL	NL	NL	NL	NL	NL	
Aluminum Foil	<3	NL	NL	NL	NL	NL	NL	NL	
Ethylene Vinyl Acetate Polymer	<2	NL	NL	NL	NL	NL	NL	NL	
Key : NL = Not Listed				1	<u>-1L1</u>		<u> </u>	/ <u> </u>	
SARA Title III Section 3	02 (EPCRA)	Extremely H	Hazardous S	ubstances:	Threshold Pl	anning Qu	antity (TPQ)		
SARA Title III Section 3									
SARA Title III Section 3									
CERCLA Hazardous Sub	stances: Re	portable Qı	uantity (RQ)		-				
CAA Section 112 (r) Re					vention: Thre	shold Qua	ntities(TQ)		
RCRA Hazardous Wast							· · ·		
CANADIAN REGULATIONS									
This product has been classified in	accordance	with the h	azard criter	ia of Contro	olled Product	regulatio	ns and the M	1SDS	
contains all the information requir						_			
the Canadian Domestic Substance					_	-			
MATERIAL				WT%	IDL It	em #	WHMIS CI	assification	
Gypsum or Calcium Sulfate Dihydr	ate (CaSO4•	2H2O)		>80	Not L	Not Listed Not List		Listed	
Cellulose				<10	Not L	Not Listed Not Lis		Listed	
Vermiculite				<10	Not L	Not Listed		Not Listed	
Starch				<3	Not L	Not Listed Not Lis		Listed	
Fibrous Glass (Continuous Filamer	nt)			<1	Not L	Not Listed No		lot Listed	
Crystalline Silica				<5	140	1406 D2A		2A	
Aluminum Foil (as Aluminum and Cmpds)				<3	4	7	Not Listed		
Ethylene Vinyl Acetate Polymer				<2	Not Listed Not Listed				
IDL Item#: Canadian Hazardous Pr	oducts Act -	- Ingredient	Disclosure	List Item #			<u></u>		
WHMIS Classification: Workplace									
Risk and Safety Phrases defined by					ex III and IV)				
R-Phrase(s): R36/37/38	•		-	•	<u> </u>				
S-Phrase(s): S51 S38 S39			Page 7 of 7						